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Arizona Corporation Commission

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10 **BEFORE THE ARIZONA CORPORATION COMMISSION**

11 COMMISSIONERS

12 TOM FORESE, Chairman
BOB BURNS
13 DOUG LITTLE
ANDY TOBIN
14 BOYD DUNN

15
16 IN THE MATTER OF THE APPLICATION
OF ARIZONA PUBLIC SERVICE
17 COMPANY FOR A HEARING TO
DETERMINE THE FAIR VALUE OF THE
18 UTILITY PROPERTY OF THE COMPANY
FOR RATEMAKING PURPOSES, TO FIX
19 A JUST AND REASONABLE RATE OF
RETURN THEREON, TO APPROVE RATE
20 SCHEDULES DESIGNED TO DEVELOP
SUCH RETURN.

DOCKET NO. E-01345A-16-0036

**REPLY BRIEF OF ARIZONA
PUBLIC SERVICE COMPANY**

21 IN THE MATTER OF FUEL AND
22 PURCHASED POWER PROCUREMENT
AUDITS FOR ARIZONA PUBLIC
23 SERVICE COMPANY.

DOCKET NO. E-01345A-16-0123

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1 **I. THE AGREEMENT IS BROADLY SUPPORTED AND RESULTS FROM**
2 **A TRANSPARENT AND OPEN PROCESS.**

3 The record in this case demonstrates that the process was fair, open, and
4 inclusive.¹ Yet, a handful of parties continue to raise issues about the settlement process
5 and appear to argue that a fully litigated case is always best. The arguments presented by
6 these parties are misplaced. They do not consider that settling generally promotes good
7 public policy. Nor do they acknowledge the customer benefits provided by the
8 Agreement reached in this proceeding.

9 **A. Parties representing diverse customer groups agree that the**
10 **Agreement provides numerous customer benefits.**

11 The Districts² argue that because the Agreement included terms that EFCA could
12 agree to, the Agreement is flawed and hurts customers.³ The Districts overlook,
13 however, important context. First, EFCA is only one of 29 parties that signed the
14 Agreement. The signing parties represent a very diverse range of interests, suggesting
15 that the Agreement reflects a great deal of balance and compromise and is not unduly
16 balanced towards one parties' particular interests, as the Districts imply. Second, there
17 can be no question that resolving all residential solar issues through the Agreement was
18 a significant positive accomplishment. To date, rooftop-solar related policy discussions
19 have occurred through litigation. The Agreement opens the door for collaboration,
20 which is a preferable way to engage in policy discussions because it is more likely to
21 include a multitude of perspectives.

22 The Districts also gloss over the numerous, broad-based customer benefits that
23 the Agreement offers.⁴ APS spent a significant portion of its Initial Post-Hearing Brief
24 outlining the customer benefits provided by the Agreement and will not repeat them

25 ¹ See APS Initial Post-Hearing Brief at 52-55.

26 ² "The Districts" include: Electrical District Number Six; Electrical District Number Seven; Aguila
27 Irrigation District; Tonopah Irrigation District; Harquahala Valley Power District; and Maricopa County
28 Municipal Water Conservation District Number One.

³ Districts Closing Brief at 2-3.

⁴ See Tr. 1270:2-9 (Abinah); see also Tenney Settlement Direct Testimony at 9.

1 here.⁵ Importantly, there is perhaps no greater evidence of the benefits provided by the
2 Agreement than the diversity represented among the Signing Parties, many of whom are
3 representing various customer groups, including residential, limited-income, retirees,
4 public schools and school business officials, federal agencies, and large industrial and
5 commercial customers.⁶ In fact, the same journal article that the Districts cite to support
6 their arguments against non-unanimous settlements acknowledges that “[i]f a broad
7 spectrum of intervenor interests supports the agreement or if traditionally adversarial
8 parties are signatories to the agreement, [the] commissions will give the non-unanimous
9 settlement careful consideration.”⁷ This Agreement easily meets this description. Thus,
10 by even the Districts’ own sources, the Agreement merits careful consideration.

11 **B. The Settlement process was fair and inclusive.**

12 The Districts raise concerns about unequal bargaining power and protecting the
13 interests of all settlement participants in the settlement process.⁸ Yet, every non-signing
14 party, except the Districts, agreed that they had ample opportunity to participate in the
15 settlement negotiations and had a full and fair opportunity to present their evidence in a
16 fulsome seven-day hearing.⁹ That parties similarly situated to the Districts were satisfied
17 with the process suggests that the Districts’ complaints lack merit.

18 The Districts also complained of their inability to introduce evidence showing
19 that the settlement process was flawed.¹⁰ Yet, the evidentiary ruling by the Presiding
20 Officer was well within the discretion typically afforded to trial judges. Moreover, the
21 Districts could have pursued other avenues to prove their claims about the settlement
22 process, but did not even try. And when questioned during the hearing, the Districts

23 ⁵ See generally, APS Initial Post-Hearing Brief at 4-31.

24 ⁶ Tr. 1088:15-19 (Tenney); Tr. 44:23-45:24 (Boehm); Tr. 37:2-13 (Hogan); Tr. 59:17-21 (Eisert); Tr.
25 60:21-61:5 (Gervenack); see also Higgins Settlement Direct Testimony at 2; Hendrix Settlement Direct
26 Testimony at 2; Alderson Settlement Direct Testimony at 2; Zwick Settlement Direct Testimony at 3.

26 ⁷ See Stefan H. Krieger, *Problems for Captive Ratepayers in Nonunanimous Settlements of Public Utility
Rate Cases*, Yale J. on Reg., Vol. 12:257, 334 (1995).

26 ⁸ See Districts Closing Brief at 3.

27 ⁹ Tr. 722:12-23 (Coffman); Tr. 906:18-20 (Gayer); Tr. 988:8-10 (Woodward); Tr. 1164:19-25
(Schlegel); Tr. 575:12-576:5 (Downing).

28 ¹⁰ Districts Closing Brief at 4.

1 admitted that they chose not to present any pre-filed testimony or witnesses, even though
2 they had the same opportunity as all other parties.¹¹

3 The Districts' apparent reluctance to participate in this proceeding did not start at
4 the hearing. They were granted intervenor status on September 6, 2016.¹² Since that
5 time, the Districts have been afforded all the same opportunities to present evidence and
6 to fully participate in the proceedings as every other party in this case. This included full
7 access to the thousands of data request responses that APS provided, as well as the
8 ability to propound almost unlimited written discovery itself. Even ED8/McMullen,
9 which levels process-related criticisms at the Settlement like the Districts, commended
10 APS for working hard to answer questions, stating in its Initial Post-Hearing Brief, "[t]o
11 its credit, APS has been very helpful and forthcoming during this process in responding
12 to ED8/McMullen's data requests and otherwise providing long-awaited answers
13 regarding APS's treatment of wholesale district customers."¹³

14 The Districts had every opportunity to seek discovery, and in fact did.¹⁴ During
15 the hearing, they had the same opportunity as all other intervenors to put on their own
16 witnesses. They could have cross examined other parties' witnesses on substantive
17 issues. Nonetheless, the Districts voluntarily refrained from doing any of these things.
18 After not participating substantively in discovery, declining to cross examine witnesses
19 on substantive Settlement terms, and choosing to not put on their own evidence
20 challenging the Settlement, the Districts cannot now complain that they have been shut
21 out of the process.

22 **C. The Districts sole substantive complaint about wholesale rates is**
23 **unsupported and FERC-jurisdictional.**

24 Even though they were silent during the hearing, the Districts finally offered a
25 substantive criticism in their Closing Brief, arguing that APS's rates are unaffordable to

26 ¹¹ Tr. 1314:1-20 (Acken).

27 ¹² See Docket No. E-01345A-16-0036, Procedural Order Granting Intervention (Sept. 6, 2016).

28 ¹³ See ED8/McMullen Initial Closing Brief at 6.

¹⁴ Although not in the record, APS represents that the Districts propounded a total of 13 data requests to APS.

1 the farmers that the Districts serve.¹⁵ The Districts do not explain, however, why the
2 subjective unaffordability of wholesale rates, instead of cost and prudence, should be
3 relevant in this rate proceeding. The Districts are wholesale customers, buying power
4 from APS and reselling that power to their own retail customers.¹⁶ Although the
5 Districts' contracts with APS incorporate portions of APS's general service E-34 rate,
6 this incorporation resulted from negotiations between the parties, not a regulating
7 agency. These long-term contracts also include negotiated charges for transmission and
8 distribution that are not based on Commission established rates. Whether the total rates
9 paid by the Districts—rates that the Districts agreed to—are appropriate is outside of the
10 Commission's jurisdiction, and instead is a question that falls within FERC's exclusive
11 jurisdiction.

12 Moreover, the Districts only offer paper-thin evidence supporting their claims,
13 citing no specific evidence or circumstance, either about the individual Districts
14 themselves or the actual experiences of their retail customers. And other evidence
15 actually undercuts the Districts arguments. Over the last few years, the Districts have
16 purchased little or no power from APS.¹⁷ The Districts also admit that they have options
17 from whom to purchase power and have access to Federal preference power.¹⁸ These
18 facts undermine the Districts' complaints, revealing that the Districts may not actually
19 be paying APS's rates, and that the Districts are not "captive" customers.

20 Finally, the Districts claim in their Closing Brief that APS power might not be an
21 economic alternative for them if the Navajo Generating Station closes.¹⁹ But they offer
22 no evidence to support this assertion, and do not acknowledge the breadth of their
23 potential options, including preference power, self-generation, other utilities, or even
24 market purchases. Nor do they explain why their rates should be lower than cost,

25 ¹⁵ See Districts Closing Brief at 5.

26 ¹⁶ Tr. 578:12-15 (Downing). Importantly, FERC, not the ACC, regulates the wholesale sale of electricity.
See 16 U.S.C. § 824(a).

27 ¹⁷ Tr. 579:4-7 (Downing).

¹⁸ See Districts Closing Brief at 5; Tr. 579:1-3 (Downing).

28 ¹⁹ Districts Closing Brief at 5.

1 particularly since costs not recovered in the Districts' rates must ultimately be borne by
2 someone else.

3
4 **II. AARP AND SWEEP OPPOSE THE 90-DAY TRIAL WITH**
5 **ASSUMPTIONS AND GUESSES, NOT FACTS OR EVIDENCE.**

6 AARP assumes that a TOU or demand rate "*could be* more detrimental" for a
7 customer, yet cannot cite to any evidence proving this assumption.²⁰ AARP contends
8 that by providing customers a 90-day trial period, customers would be left without
9 choices or would be forced to "pick their poison" among two other rate plans, but does
10 not offer any proof of such "poison."²¹ In fact, the evidence in the record shows that a
11 significant majority of APS customers will save money on these modern rates.²²
12 Additionally, contrary to AARP's assertions, the Agreement preserves customer rate
13 choice, but does so in a manner that reflects a broader consensus.²³

14 AARP argues that the 90-day trial would "*likely be* confusing and frustrating for
15 the affected customers"²⁴ and states that customers would prefer a basic rate plan. It
16 appears, however, that AARP failed to query its own Arizona members before reaching
17 this conclusion. When asked at the hearing, AARP witness Coffman admitted as much:

18 Q. Has AARP ever asked its Arizona customers whether faced with,
19 one, a simpler bill structure versus having lower overall bills, which they
20 would prefer?

21 A. I am not sure whether that question has been offered . . . I am not
22 sure if that specific question was asked.²⁵

23 AARP's position appears to reflect national, not local, interests. Indeed, AARP certainly
24 does not represent the concerns of local seniors groups, such as the Property Owners and
25 Residents Association, Sun City West, and the Sun City Home Owners Association—
26 both of which signed the Agreement. Nor does AARP consider that over half of APS's

27 ²⁰ See AARP Post-Hearing Brief at 8 (emphasis added).

28 ²¹ AARP Post-Hearing Brief at 6-7.

²² Tr. 858:19-860:14 (Snook).

²³ See APS Initial Post-Hearing Brief at 8-9.

²⁴ See AARP Post-Hearing Brief at 8 (emphasis added).

²⁵ Tr. 724:9-15 (Coffman).

1 current customers are already on a TOU rate.²⁶ The prevalence of TOU rates today
2 demonstrates that APS customers have the ability to adapt to and manage these rates.
3 There is no reason to assume, as does AARP, that future APS customers will be less
4 sophisticated in that regard.

5 Lastly, SWEEP argues that the 90-day trial period should be eliminated as an
6 unwarranted restriction on customer choice. However, SWEEP fails to recognize the
7 balance the Agreement sought by implementing a 90-day trial provision. The evidence
8 in the record demonstrates the need for more modernized rates. To accomplish this end,
9 the Company originally proposed universal, time-differentiated demand rates for all
10 customers.²⁷ The Agreement, however, did not adopt the Company's proposal. Instead,
11 the Agreement establishes a more moderate path towards implementing modern rates
12 while providing opportunities for customer education and outreach.²⁸ Part of this
13 moderation involves customers being able to return to a flat, non-time sensitive rate, if
14 they choose. The 90-day trial provision strikes the proper balance between modernizing
15 rates and preserving customer choice, and should be approved without modification.

16
17 **III. THE 3 P.M.-8 P.M. ON-PEAK PERIOD PROPERLY BALANCES**
SYSTEM REALITIES WITH CUSTOMER CONVENIENCE.

18 APS has demonstrated that its customers will benefit from fewer on-peak hours
19 that better align with system costs, and that a majority of the parties support this positive
20 change.²⁹ SWEEP contends that a TOU window should be designed with the shortest
21 possible timeframe, without regard, apparently, for actual system conditions or the
22 policy goal of influencing prospective usage.³⁰ SWEEP fails to recognize that a properly
23 designed TOU window aligns the on-peak hours with the Company's highest peaks and
24 costs over a foreseeable planning horizon.³¹ Although the record in this case

25 ²⁶ Tr. 720:23-722:7 (Coffman).

26 ²⁷ See APS Initial Post-Hearing Brief at 7-8.

27 ²⁸ *Id.* at 56-58.

28 ²⁹ *Id.* at 58-61.

³⁰ See Initial Brief of SWEEP at 15.

³¹ See Tr. 341:17-19 (Miessner).

1 demonstrates that a peak period from 3 p.m.-9 p.m. would most reflect APS's system
2 conditions, the Agreement adopts a shorter on-peak period that ends at 8 p.m.³² The
3 shorter five hour on-peak window of 3 p.m.-8 p.m. during weekdays only, was carefully
4 crafted to maximize the advantage that results when customers shift load to off-peak. At
5 the same time, this TOU period recognizes the potential impact on customers by
6 reducing the number of on-peak hours and increasing the number of off-peak holidays.
7 The 3 p.m.-8 p.m. on-peak time period is in the public interest and should be adopted.

8
9 **IV. THE PROPOSED BASIC SERVICE CHARGES ARE COST-BASED AND**
10 **CONSISTENT WITH PRIOR COMMISSION DECISIONS.**

11 Only two intervenors, SWEEP and AARP, have offered any testimony opposing
12 the basic service charge (BSC) amounts agreed to by the Settling Parties. AARP seeks to
13 lower the BSC for the R-Basic rate from \$15 to between \$10 and \$13.³³ SWEEP seeks
14 to dramatically lower the BSCs for all residential rates, and wants additional reductions
15 to the extra small and small general service BSCs.³⁴ Importantly, neither contests the
16 agreed upon revenue requirement.³⁵ Nor do they challenge the average increase to
17 residential rates. AARP and SWEEP simply don't like the allocation of costs between
18 the BSC and the energy charges for the higher usage standard rates.

19 The BSCs agreed to in the Settlement are cost-based and designed to recover
20 fixed costs in a fair manner. The changes proposed by AARP and SWEEP emanate from
21 strongly-held opposition to BSCs as a matter of policy more than specific evidence
22 concerning APS's cost structure. Moreover, their proposed BSC reductions would
23 disturb the delicate balance achieved by the Agreement. The agreed-upon BSCs reflect a
24 compromise, are supported by the evidence, and should be approved.

25
26 ³² See APS Initial Post-Hearing Brief at 58-60.

27 ³³ See AARP Post-Hearing Brief at 6.

28 ³⁴ See Initial Brief of SWEEP at 5.

³⁵ See Tr. 1118:6-10; see also Initial Brief of SWEEP at 6; AARP Post-Hearing Brief at 3.

1 **A. The BSCs in the Agreement are cost-based.**

2 A BSC should be designed to appropriately recover fixed costs, *i.e.*, the costs that
3 do not vary with the amount of kW demand or kWh energy used by a customer. In its
4 direct case, APS demonstrated that its fixed costs to serve are \$28.52 per month, on
5 average, per residential customer.³⁶ This amount includes revenue cycle costs, such as
6 metering, billing, customer service, and certain distribution related costs. The costs
7 included are consistent with the basic customer method.³⁷ Neither APS, nor any of the
8 Settling Parties, proposed to set the residential BSCs at this full cost of service. But the
9 cost of service study provides ample support for a BSC as high as \$28.52. Anything less
10 than this amount is cost-justified, irrespective of SWEEP's assertions to the contrary.

11 SWEEP posits that the basic customer method only supports a BSC of
12 approximately \$8.00. As discussed on pages 64-65 of APS's Initial Post-Hearing Brief,
13 however, SWEEP was selective in the costs it included in its calculation and it did not
14 include the full cost to serve. And as Staff points out in its Initial Closing Brief, setting
15 BSCs is a policy decision guided by, but not bound to, a particular method of
16 calculation.³⁸

17 Section 17 of the Agreement outlines the various residential BSCs—all of which
18 are well below the level of fixed costs supported by the evidence. The table below shows
19 APS's fixed costs to serve, the Settlement BSCs, along with the proposals by SWEEP
20 and AARP. For reference, APS's current BSCs are also included.

21
22
23
24
25
26 ³⁶ See APS Hearing Exhibit 32; *see also* Tr. 802:15-17 (Snook). The range by residential rate is between
27 \$24 and \$34. See APS Hearing Exhibit 32.

28 ³⁷ Tr. 802:15-17 (Snook); Tr. 845:19-22 (Snook).

³⁸ Staff's Initial Closing Brief at 22-23.

Summary of BSC Proposals^{39,40}

	R-XS (≤ 600 kWh/ month)	R-Basic (600-1000 kWh/month)	R-Large (≥1000 kWh/ month)	R-TOU-E	R-2 & R-3	R-Tech
Settlement Agreement ⁴¹	\$10	\$15	\$20	\$13	\$13	\$15
Fixed Costs for BSC ⁴²	\$24.51	\$24.51	\$24.51	\$29.79	\$34.12	N/A
SWEEP ⁴³	\$8.00	\$8 or \$10	\$8 or \$10	\$8.00	Did not address	Did not address
AARP	Does not oppose	\$10-13	Does not oppose	Does not oppose	Did not address	Did not address
Current BSC for Similar Rate	\$8.67	\$8.67	\$8.67	\$17	\$17	N/A

B. Tiered BSCs are appropriate.

SWEEP contends that both the percent increase of the BSCs for standard rates, and the percent increase for select customers, are too high.⁴⁴ It is important, however, to not look merely at percent increases, which can be misleading given the low numbers at issue. Instead, assessing the dollar increase and total average bill impacts across all customers can provide more insight into how customers might actually be affected by the proposed changes. Notably, neither SWEEP, nor AARP take issue with the average bill impact.

Rates are designed to collect a specified amount of revenue from customers based on average usage. Sometimes customers within a class or near the border between two classes will experience anomalous results despite the best rate design practices. These anomalies do not mean that the rate structure is unfair, provided the overall impacts to

³⁹ In the UNSE Rate Case, the Commission approved a \$15 BSC for all residential rates during the transition period, and thereafter a \$15 BSC for standard non-TOU, two-part rates and a \$12 BSC for TOU and TOU with demand rates. *See* Decision No. 75697 at 66.

⁴⁰ In the TEP Rate Case, the Commission approved a \$13 BSC for standard non-TOU, two-part rates and a \$10 BSC for TOU and TOU demand rates. *See* Decision No. 75975 at 64. Like in the UNSE case, the Commission reasoned: "we would like to encourage the greater use of TOU rates to see if they can ameliorate some of the short-comings of the standard two-part rate." *Id.*

⁴¹ *See* Settlement Agreement at 17.1-17.7.

⁴² *See* APS Hearing Exhibit 32 outlining fixed costs to serve by customer class and rate from the Cost of Service Study.

⁴³ *See* Initial Brief of SWEEP at 5.

⁴⁴ *Id.*

1 the majority of customers are fair and reasonable. Here, the overall revenues to be
2 collected, as well as the specific rate structures and BSCs agreed to, are supported by a
3 broad range of parties, including low-income advocates, certain senior groups, RUCO,
4 Staff, and others. And this broad group of diverse stakeholders have testified that the
5 overall result of the Settlement and, rate designs included, is fair and balanced to both
6 customers and the Company.⁴⁵ SWEEP's claim that a handful of outlier customers could
7 experience larger bill impacts than the average does not vitiate the entire structure of the
8 agreed-upon BSCs, but instead strengthens the case for offering robust education to
9 customers regarding the rate transition. Sections 26 and 27 of the Settlement do just that.

10 SWEEP also contends that the increased BSCs decrease the amount of control
11 that customers have over their bills. SWEEP fails to recognize, however, that customers
12 can still control the energy portions of their bills. In fact, there are *more* methods to
13 conserve energy on TOU or TOU demand rates than on flat, non-time differentiated
14 rates. And most of the larger usage customers will pay lower rates on TOU and/or TOU
15 demand rates, even with the BSC changes, without making any changes in their
16 household energy usage.⁴⁶ That the Settlement provides a means for customers to obtain
17 lower rates by selecting a TOU rate *before* even beginning to modify their behavior
18 resulted from a delicately-balanced compromise that relies, in significant part, on the
19 agreed-upon BSCs. SWEEP's effort to disrupt this compromise, prevent customers'
20 ability to lower rates, and undermine the Settlement's progress towards rate
21 modernization should be considered when assessing SWEEP's arguments.

22 **C. The BSCs in the Settlement are consistent with Commission policy**
23 **and prior decisions.**

24 The Commission has indicated a clear desire to modernize rate design. In the
25 recent UNSE rate case, the Commission stated that "the time is ripe for a more modern
26 rate design,"⁴⁷ explaining:

27 ⁴⁵ See generally APS Initial Post-Hearing Brief at 4-32.

28 ⁴⁶ Tr. 169:21 – 170:7 (Lockwood); Tr. 858:19 – 860:14 (Snook).

⁴⁷ Decision No. 75697 at 65:23.

1 "Utilities have traditionally used two-part volumetric rates, consisting of a
2 fixed customer charge, and an energy charge based on kWhs sold, to
3 recover the costs of serving residential customers. Until fairly recently, the
4 load characteristics of residential customers were relatively homogenous,
5 such that the simple two-part rates, designed based on average
6 consumption assumptions, did an adequate job of recovering the costs of
7 service. The short-coming of two-part rates is that if customers use fewer
8 kWhs, for whatever reason, including energy efficiency products, a desire
9 to protect the environment, or to save money, these rates do not recover all
10 of the costs of service. The Commission recognized this effect . . . by
11 enacting the LFCR, which was intended to compensate the Company for
12 the lost revenues associated with EE and DG. . . . [The Commission also
13 recognized that] [l]ow usage customers do not contribute as much to lost
14 fixed cost recover[y] as other [customers] because their utility bills are
15 smaller."⁴⁸

16 The Commission went on to approve a higher BSC of \$15 for UNSE's standard rates
17 and a lower \$12 BSC for its TOU and demand rates to incent customers to move toward
18 more modern rate designs.⁴⁹

19 Likewise, the Commission approved a higher BSC for basic rates and a lower
20 BSC for TOU rates in TEP's recent rate case, explaining that it "would like to encourage
21 the greater use of TOU rates to see if they can ameliorate some of the short-comings of
22 the standard two-part rate."⁵⁰ The Commission went on to say: "Those customers who
23 wish to achieve greater control over their bills are free to try the TOU options with a
24 [lower BSC than the standard two-part rate]."⁵¹

25 Consistent with the Commission's decisions in both the UNSE and TEP rate
26 cases,⁵² the Settling Parties here propose higher BSCs for higher usage customers who
27 choose to remain on standard two-part rates in order to incent them to move to more
28 modern rate designs. SWEEP's proposal to collect the bare minimum of costs through
the BSC goes against the Commission's stated policy of modernizing rate design by

⁴⁸ Decision No. 75697 at 64:5-16.

⁴⁹ Decision No. 75697 at 66:17-19.

⁵⁰ Decision No. 75975 at 64:2-3.

⁵¹ Decision No. 75975 at 64:11-12.

⁵² APS cites the recent UNSE and TEP rate case decisions as illustrative examples of Commission policy. Of course, these decisions are not binding precedent on APS. APS acknowledges that the costs to serve vary amongst utilities, and the specific charges set in one utility service territory may not be appropriate in another territory.

1 removing incentives for customers to try more advanced rates—the benefits of which are
2 more opportunity for customer savings and potential peak reductions that benefit the
3 entire system.

4 **V. THE EVIDENCE SUPPORTS THE SETTLEMENT'S COMPROMISE**
5 **REGARDING AMI.**

6 APS has demonstrated with evidence that (i) its AMI meters meet applicable
7 Federal standards; (ii) the benefits of AMI meters far outweigh the costs; and (iii) the
8 opt-out proposal in the Settlement does not run afoul of A.R.S. § 40-344.⁵³ In stark
9 contrast, Mr. Woodward's testimony and brief largely consists of ad hominem attacks
10 and conjecture. Parsing through the layers of adjectives, it appears that nothing short of
11 removing all AMI meters and returning to obsolete mechanical meters—meters that are
12 not even sold by reputable manufacturers anymore and are incapable of metering most
13 of the Company's current and proposed residential rate schedules⁵⁴—would satisfy him.
14 No utility in the country has done this. And Mr. Woodward does not even attempt to
15 analyze the operational consequences of his desired relief, much less acknowledge the
16 staggering costs of removing every single AMI meter in APS's service territory.

17 Mr. Woodward relies on conjecture and inference to the exclusion of any other
18 form of proof, and one need only look to his eleventh hour introduction of “new
19 evidence” in his Closing Brief for an example. In his Closing Brief, Mr. Woodward
20 includes a YouTube link to a home video of himself hooked up to an EKG machine with
21 a meter nearly sitting on top of his head. According to Mr. Woodward, this video
22 purports to demonstrate some sort of experiment regarding meters. To support his
23 experiment, Mr. Woodward includes unsupported and unverifiable statements about
24 himself, his equipment, his method, and his medical conclusions.

25 New “evidence” of this kind and at this stage of a proceeding can properly be
26 disregarded on procedural grounds alone. The hearing concluded weeks ago and the

27 ⁵³ See Initial Post-Hearing Brief of APS at 44-45 and 48-49.

28 ⁵⁴ See Tr. 749:10-750:1 (Bordenkircher); see also Tr. 765:5-766:3 (Bordenkircher).

1 time for introducing new evidence passed. Additionally, it is not clear that the new
2 evidence follows any semblance of the scientific method. Nor has it been subjected to
3 cross-examination. Mr. Woodward cannot support his desired inference that the results
4 of his experiment must be true for all other customers, and his last minute attempt to
5 introduce new evidence should be ignored.

6 Mr. Gayer likewise opposes the proposed AMI opt-out proposal for a variety of
7 reasons. But the main gist of Mr. Gayer's position appears to be his contention that the
8 costs of the opt-out program should be socialized across all customers. Whether to
9 socialize the costs of a voluntary opt-out program is a policy decision for the
10 Commission. The Settling Parties agreed to socialize more than two-thirds of the costs
11 associated with an AMI opt-out program, but also agreed that customers who refuse
12 AMI meters should pay at least a portion of the costs of doing so.

13 For these reasons, and the other reasons articulated in its Initial Post-Hearing
14 Brief, APS requests that the Commission adopt the AMI opt-out proposal contained in
15 Section 30 of the Settlement Agreement.

16 **VI. EFCA'S SPECIAL RATE IS UNSUPPORTED BY THE EVIDENCE AND**
17 **WOULD BECOME THE NEW NET ENERGY METERING.**

18 EFCA's arguments for special rate treatment cannot overcome the flaws
19 identified in APS's Initial Post-Hearing Brief. This Reply Brief addresses certain
20 arguments made by EFCA.

21 **A. EFCA's business model should adapt to rate design, not the other way**
22 **around, or we will have more grandfathering and more cost shifts.**

23 EFCA claims that ratchets undermine the adoption of storage, but even in its
24 Post-Hearing Brief admits that customers installing storage need wait only a year "to
25 recogniz[e] the *full benefit of their investment*."⁵⁵ EFCA's complaint about first-year
26 savings is a business model problem, not a rate design problem. Business models should
27 adapt to rate design, not the other way around. If EFCA succeeds in obtaining a rate

28 ⁵⁵ EFCA Post-Hearing Brief at 7:10-12 (emphasis added).

1 design that matches exactly how it wishes to market storage to customers, the
2 Commission will face a new wave of questions about whether to grandfather the rate
3 treatment of yet another customer group.

4 With this grandfathered rate treatment will come another cost shift embedded in
5 rates. EFCA's proposal will result in unrecovered fixed costs—and thus a cost shift—for
6 the very same reason as did NEM: it would assign costs to rate elements (in this case on-
7 peak demand) that rightly are associated with another.⁵⁶ EFCA claims that its proposed
8 special rate is revenue neutral by design. This was refuted in APS's Initial Post-Hearing
9 Brief beginning at page 33. But even if it were, this would not mean there will be no cost
10 shifting. APS's current two-part volumetric rates were also intended to be revenue
11 neutral when created decades ago, yet it is from the grandfathering of those rates that the
12 current cost shift caused by rooftop solar emerges.

13 **B. EFCA's claim that its proposal will reduce system costs: unsupported**
14 **speculation that assumes a non-existent perfect technology.**

15 EFCA asserts that battery deployment can begin offsetting system costs
16 immediately.⁵⁷ This claim is aspirational marketing at best.

17 **1. EFCA has completely failed to support its conclusory statement**
18 **that batteries will reduce system costs.**

19 In written testimony and at hearing, EFCA offered no evidence of when battery
20 installations will occur, by whom, or in what size. Nor did EFCA present any evidence
21 about batteries themselves. We don't know if storage customers will be able to
22 consistently dispatch their batteries when needed, or if batteries are even capable of
23 being consistently dispatched during on-peak periods with sufficient longevity to
24 permanently meet the system's needs.

25 Beyond failing to offer evidence about customer installations or battery
26 capabilities, EFCA offered no evidence regarding how much system peak load battery
27 customers will actually mitigate, if any. After all, E-32 L customers must do more than

28 ⁵⁶ APS Initial Post-Hearing Brief at 33.

⁵⁷ EFCA Post-Hearing Brief at 9:19.

1 acquire storage and use it to shave their own individual peak demands. They must
2 discharge their storage during the system peak, and their storage must be reliable day-in
3 and day-out, month-in and month-out. Whether customers will do the former is
4 unknown, and whether batteries will prove capable of the latter is untested on anything
5 but an experimental basis. The extent of evidence presented by EFCA in the hearing on
6 the efficacy of batteries amounted to superficial, conclusory statements that are not
7 enough to justify the certain cost shift associated with EFCA's proposal.

8 EFCA's argument also fails to recognize that APS must ensure that its systems
9 are robust enough and ready to meet its obligation to serve all of its customers' loads, at
10 all times, irrespective of customers' installations of storage technologies that may
11 intermittently reduce their own loads and may or may not be used in a manner to help
12 reduce peak system loads.

13 **2. EFCA's reliance on APS's 2017 IRP is exactly the type of**
14 **speculation that the Commission has rejected in Value of Solar.**

15 Other than its own statements, EFCA can only point to predictions about future
16 load growth in APS's 2017 Integrated Resource Plan to corroborate claims that EFCA's
17 proposal will reduce costs.⁵⁸ Yet this is exactly the type of decision calculus that the
18 Commission rejected in Decision No. 75859. There, the Commission rejected claims
19 that the rate for energy exported by rooftop solar should be higher because of
20 speculative claims regarding whether that energy would reduce future costs.⁵⁹

21 EFCA is making a similar argument here, only for storage. Just as The Alliance
22 for Solar Choice (TASC) sought to justify NEM by relying on speculation about the
23 future benefits of rooftop solar, EFCA relies on speculation about the future benefits of
24 batteries to justify a new set of rate incentives. Although APS's 2017 IRP forecasts a
25 50% increase in load, this forecast is a conservative planning estimate, and does not
26 translate into actual system costs. Moreover, the forecasted increase stems from a

27 ⁵⁸ See EFCA Post-Hearing Brief at 9; see also EFCA Hearing Exhibit 12 at 33.

28 ⁵⁹ See Decision No. 75859 at 170.

1 projected growth in *residential* customers over the next 15 years, a timeframe that far
2 exceeds APS's next general rate case. "The current forecast assumes a compound annual
3 growth rate in residential customers of 2.5%."⁶⁰ By 2032, APS projects adding "550,000
4 customers."⁶¹

5 EFCA ignores this detail, and instead uses the entire 50% load growth forecast to
6 support its optional *commercial* rate design proposal. It is true that with more residential
7 customers comes increased commercial activity. But how much commercial activity,
8 when that activity occurs between now and 2032, and whether that activity is caused by
9 customers in the E-32 L class, is entirely unknown. Fundamentally, it is APS's
10 prediction regarding more residential customers that forms the basis of APS's load
11 growth forecast. "Long-term economic growth in Arizona is primarily driven by *growth*
12 *in population*."⁶² EFCA's reliance on APS's 2017 IRP to bolster its claims that
13 customer-sited, behind the meter batteries will save system costs is misplaced, as well as
14 speculative, and should be disregarded.

15 **3. Battery customers don't leave the system, and APS cannot**
16 **delegate its responsibility to meet peak demand.**

17 EFCA's claims about batteries and peak demand simply assume, without any
18 evidence, that once installed on a customer's premises, batteries will perfectly meet the
19 entire breadth of that customer's peak demand. But no one knows if batteries will be
20 able to do this. Nor do we know the life cycle of batteries, or whether, just like cell
21 phone batteries, the efficiency and capacity of customer-sited storage steadily (or even
22 rapidly) declines as it is used.

23 At the same time that customers might begin installing an unproven technology,
24 APS must continue to plan for and meet peak demand. APS cannot delegate these
25 responsibilities. And battery customers do not leave the system. If batteries are unable to
26

27 ⁶⁰ EFCA Hearing Exhibit 12 at 190.

28 ⁶¹ EFCA Hearing Exhibit 12 at 33.

⁶² EFCA Hearing Exhibit 12 at 34 (emphasis added).

1 discharge for a customer's entire peak period, APS will serve the customer's entire load
2 at the time of peak. Being ready to supply 100% of a battery customers' peak load is a
3 standby service that requires the same amount of fixed infrastructure needed if the
4 customer had never installed a battery in the first place. Because battery customers do
5 not leave the system, and APS must stand ready to supply 100% of the customers' peak
6 load, EFCA's conclusory assertions regarding system costs should be given little weight.

7 Moreover, the nature of EFCA's proposal exacerbates this absence of proof.
8 EFCA's proposal would "over reward load reduction in the winter months when the load
9 reduction is generally not needed."⁶³ In doing so, EFCA's proposal would disincentivize
10 customers from actually using their batteries during peak.

11 Perhaps more significant is that EFCA's proposal will cause customers to install
12 behind-the-meter batteries randomly on the system where EFCA's members can make
13 sales, rather than in relation to APS system needs. And once installed, these batteries
14 will be discharged by customers without regard to peak needs. EFCA fails to explain
15 how chaotically dispersed and unpredictably operated battery installations could
16 supplant the need for APS to plan for and build infrastructure to meet peak needs. EFCA
17 has simply not carried its burden of proof that its proposal will reduce system costs.

18 **C. There is no cost shift. Load growth will solve the cost shift. The LFCR**
19 **will address the cost shift. Which is it? Turns out, none of them.**

20 EFCA has floated each of these arguments during the hearing and in its Initial
21 Post-Hearing Brief at 14-17 and 20. EFCA cannot decide between its contradictory
22 statements. The reality is that all three are false. And in making them, EFCA
23 acknowledges that its proposal will result in a cost shift.

24 **1. EFCA's proposal will undeniably cause a cost shift.**

25 EFCA's proposal will result in a cost shift because the proposal will leave
26 unrecovered fixed costs to be reallocated in APS's rate case. APS witness Miessner

27
28 ⁶³ Tr. 345:24-346:1 (Miessner).

1 testified that APS installs facilities to serve E-32 L customers during both peak and off-
2 peak periods of the day and year.⁶⁴ Yet, EFCA proposes to remove the rate design
3 mechanisms needed to ensure that APS collects the fixed costs associated with these
4 facilities.⁶⁵ As discussed on pages 34-36 of APS's Initial Post-Hearing Brief, the failure
5 to collect these fixed costs will inevitably cause a cost shift.⁶⁶

6
7 **2. New revenue from load growth would lower rates for all
customers, unless used to mask the cost shift as EFCA proposes.**

8 Apparently conceding that the cost shift is a very real possibility, EFCA next
9 claims (on page 16 of its Post-Hearing Brief) that the cost shift can be ignored because
10 future load growth will pay for the lost fixed cost revenue. But we don't know if that
11 load growth will occur, much less if it will occur in the E-32 L class. Indeed, APS
12 projects that the growth will primarily occur in the residential class.⁶⁷

13 Perhaps more importantly, APS will likely incur additional fixed costs to serve
14 the projected load growth. EFCA claims that the load growth will "cover up"⁶⁸ any cost
15 shift caused by its proposal. But if the growth results in new fixed costs, the incremental
16 revenue associated with the load growth will not be "available" to hide the consequences
17 of EFCA's proposal. And if any incremental revenue is "available," it will reduce rates
18 for APS customers. If instead the revenue "covered up" the effects of EFCA's proposal,
19 APS's customers would not receive this rate decrease, and depriving customers of a rate
20 decrease is effectively a rate increase.

21 **3. By proposing the use of the LFCR, EFCA ends any controversy
22 over whether its proposal will cause a cost shift.**

23 In the settlement agreement resolving APS's last rate case, the parties—including
24 representatives from the E-32 L class—agreed that instead of paying an LFCR to
25 address unrecovered fixed costs, E-32 L and E-32 L TOU customers would take service

26 ⁶⁴ See, e.g., Tr. 474:2-11 (Miessner).

27 ⁶⁵ See Tr. 466:17-21 (Miessner).

28 ⁶⁶ See also Miessner Settlement Rebuttal Testimony at 19.

⁶⁷ See EFCA Hearing Exhibit 12 at 33-34.

⁶⁸ See Tr. 1216:24-1217:9 (Garrett).

1 through rates that included, among other protections, a ratchet.⁶⁹ EFCA's proposal
2 would remove the protection afforded by the ratchet. Without this protection, even
3 EFCA's witness Garrett testified during the hearing that if the E-32 L ratchet were
4 removed, "you would probably have to revisit the decision not to assign any LFCR costs
5 to that class."⁷⁰ Indeed, in its Post-Hearing Brief, EFCA formally suggested modifying
6 its proposal so that customers taking service under its proposed optional rates also pay
7 the LFCR.⁷¹

8 The only reason to apply the LFCR when an E-32 L customer installs a battery
9 under EFCA's proposal, however, is because there will be, in Mr. Garrett's own words,
10 "lost revenues from that customer between the rate cases...."⁷² By acknowledging the
11 prospect of lost revenue, and linking the ratchet and the LFCR, EFCA admits its clear
12 understanding that its proposal will cause a cost shift. The LFCR stands for Lost Fixed
13 Cost Recovery, and its sole purpose is to mitigate a certain category of APS's lost fixed
14 costs caused by customer behavior. EFCA would only suggest revisiting the decision of
15 exempting E-32 L customers from paying the LFCR if lost fixed costs were on the
16 horizon.

17 Moreover, applying the LFCR will not avoid the cost shift. In fact, the opposite is
18 true. The LFCR is the mechanism by which unrecovered fixed costs are shifted to and
19 recovered from other customers in between rates cases. EFCA witness Garrett agreed
20 that "the LFCR essentially socializes [] unrecovered fixed costs."⁷³ The fixed costs
21 recovered through LFCR during the test year are shifted into base rates paid by other
22

23 ⁶⁹ See Settlement Agreement at § 9.7 and Attachment K at 2, attached to Decision No. 73183 in Docket
No. E-01345A-11-0224; *see also* Tr. 350:19 – 351:8 (Miessner).

24 ⁷⁰ Tr. 1230:25 – 1231:1 (Garrett).

25 ⁷¹ APS notes that its LFCR is limited in scope. It only includes fixed costs lost due to customers
installing distributed generation or energy efficiency. And of those fixed costs, it does not include any
lost fixed generation costs and excludes 50% of the transmission and distribution costs collected through
26 a kW charge. *See* Direct Testimony of Leland Snook (Pre-Settlement) at 36; *see also* Lost Fixed Cost
Recovery Plan of Administration at 1-2. Modifying the LFCR as EFCA proposes is not as simple as
27 expanding its application to certain E-32 L customers.

28 ⁷² Tr. 1250:9-10 (Garrett).

⁷³ Tr. 1250:16-18 (Garrett).

1 customers when they are reallocated in the next rate case. As Mr. Garrett put it, "in the
2 next rate case, of course, that's all reset."⁷⁴ EFCA's willingness to apply this lost fixed
3 cost recovery mechanism to its optional rate is an admission that EFCA's optional rate is
4 not revenue neutral, but instead will shift costs.

5 **D. It is not whether to incentivize, but how, and transparent incentives to**
6 **achieve specific targets protects customers.**

7 APS and EFCA disagree on both whether the current rate structure offers
8 appropriate incentives, and how incentives should be structured into the future. APS
9 discusses incentives under the current E-32 L rate structure at some length in its Initial
10 Post-Hearing Brief at pages 37-40 and will not repeat the bulk of that discussion here.
11 From EFCA's Post-Hearing Brief, it is clear that EFCA's primary complaint remains its
12 allegation that the ratchet undermines the first year of savings that an E-32 L customer
13 might enjoy upon installing a battery.⁷⁵ As discussed above, however, this is a business
14 model problem. Customers can readily address first year savings by installing the unit
15 before the summer billing period,⁷⁶ or through contract negotiations with their battery
16 provider. And the fact that E-32 L customers install energy efficiency in proportion to
17 other general service customers⁷⁷ suggests that the current E-32 L rate structure does not
18 impede customer efforts to reduce load.

19 Regarding how incentives should be structured into the future, EFCA's Post-
20 Hearing Brief raises key policy questions regarding the use and nature of incentives that
21 should be considered while assessing the parties' proposals.

22 **1. Incentives should jumpstart technologies, not strengthen**
23 **intervenors' business models.**

24 Perhaps more important than whether potential battery customers *could* receive
25 first year bill savings is whether potential battery customers *should* receive first-year bill

26 ⁷⁴ Tr. 1250:9-11 (Garrett).

27 ⁷⁵ See, e.g., EFCA Post-Hearing Brief at 7.

28 ⁷⁶ See Miessner Settlement Rebuttal Testimony at 16:1-3 ("customers could realize substantial first-year savings if they installed the unit prior to the summer billing period.").

⁷⁷ See Tr. 469:5-14 (Miessner).

1 savings beyond system cost savings. EFCA's desire to achieve first-year savings for its
2 members' customers is understandable. As EFCA witness Garrett agreed during the
3 hearing, removing ratchets "would help the business model of the members of EFCA"⁷⁸
4 and "directly benefit the businesses that retained [him]."⁷⁹ But helping the business
5 model of EFCA's members must be balanced against the consequences for all other
6 customers in the E-32 L class. Bill savings should be as closely tied to actual system
7 cost savings as possible to avoid, or at least mitigate, cost shifts.

8 EFCA's narrow focus on bill savings, despite the certainty of resulting cost shifts,
9 raises significant policy questions that EFCA does not acknowledge. The most
10 immediate question is whether rates should be intentionally designed to help the
11 business model of certain intervenors at the expense of customers. Note that this is not a
12 question about the importance or potential of battery storage. Indeed, APS has proposed
13 a battery incentive program designed to encourage battery technology in a transparent
14 and targeted way. Instead of *whether* we incentivize new technologies, EFCA's proposal
15 raises the question of *how* we incentivize them. APS submits that the answer is clear:
16 incentives embedded in rate design should only be tied to reducible costs, and all other
17 incentives should be transparent, not buried, and targeted to achieve specific goals,
18 rather than open-ended.

19
20 **2. Incentives in rates should reflect reducible costs; APS proposes
further incentives that are transparent and targeted.**

21 APS believes that rates should send price signals that encourage customers to
22 avoid costs that APS in turn can avoid. Matching price signals to reducible costs
23 incentivizes customer choice while protecting all other customers at the same time. APS
24 witness Miessner testified that under the current E-32 L rate design, "when a technology
25 reduces grid costs, the cost of service savings, if you will, would equal the bill savings,
26

27 ⁷⁸ See Tr. 1233:7-15 (Garrett).

28 ⁷⁹ Tr. 1235:18-1236:7 (Garrett).

1 and therefore you wouldn't be shifting any cost to other customers."⁸⁰ Doing the
2 opposite, and encouraging customers to avoid costs that APS *cannot* then avoid, such as
3 fixed infrastructure costs, will only shift responsibility for those fixed costs to other
4 customers. During the hearing, APS witness Miessner highlighted the distinction
5 between costs that are reducible and those that are not:

6 Q. ...Do you agree generally that fixed charges do not send price signals
7 to customers?

8 A. By a fixed charge, you mean like a basic service charge?

9 Q. Just any fixed charge, unavoidable charge.

10 A. Yeah, if you can't reduce the charge, it sends a price signal that says
11 here is my cost of service for you, but it isn't a price signal you can react
12 to or reduce. Nor should it be. I mean that's kind of the point. Some of
13 these costs, you know, should not be reducible, you know, on the bill
14 because they aren't driven by kW or kilowatt hours.⁸¹

15 Incentives for new technologies need not end with rate design. If the Commission
16 seeks to achieve certain policy objectives related to customer-sited technology, the best
17 course is to do so transparently, outside of rate design, in a manner that can be tapered as
18 technology costs decline. The ability to taper incentives is critical. Without declining
19 incentives, technologies are not forced to improve:

20 ...technology as a whole matures and meets needs of marketplaces when
21 those technologies are forced to compete and when those technologies are
22 forced to adapt and mature so that they meet those needs. And adding
23 incentives or subsidies in rates has a tendency to basically retard that
24 growth and maturity of a technology because those **technologies mature
25 far enough to meet a price point or an economic point, and that gets
26 arbitrarily, or I should say artificially, set by those incentives.**⁸²

27 APS's proposal would avoid this trap, and offers the Commission an opportunity to
28 encourage battery deployment and study its effects while retaining the ability to protect
all other customers.

At the same time, APS's proposal would provide a means for battery customers
to achieve savings in their first year of battery deployment beyond contract negotiations
and timing their installation. And it would do so transparently, through a cash incentive,

⁸⁰ Tr. 372:9-21 (Miessner).

⁸¹ Tr. 446:2-13 (Miessner).

⁸² Tr. 590:3-14 (Bordenkircher) (emphasis added).

1 rather than as a buried rate incentive that customers (and EFCA) will likely want
2 grandfathered in the future. APS's proposal is the appropriate balance between the
3 interests of EFCA's members and customers, and is the best option for encouraging
4 battery deployment.

5
6 **3. EFCA's criticisms of APS's proposal are actually reasons to
adopt APS's proposal.**

7 EFCA's criticisms of APS's proposal only further support the need for a targeted,
8 transparent means to incentivize new technologies.

9
10 **a. By preserving the existing rate structure, APS's proposal
balances incentives with cost recovery.**

11 In its Post-Hearing Brief, EFCA complains that APS's proposal is "inadequate"
12 and preserves the existing rate structure.⁸³ The existing rate structure, however, offers
13 important protections to E-32 L customers.⁸⁴ EFCA appears to ignore that these
14 protections assign costs according to causation and mitigate the risk of cost shifts.
15 Moreover, customers installing batteries can achieve bill savings under the existing rate
16 structure as discussed above.

17 **b. By saying \$2 million is inadequate, EFCA demonstrates
18 why we need scrutiny over incentives that benefit private
companies.**

19 EFCA's claims of "inadequacy" actually prove the need for a transparent
20 incentive targeted to achieve specific Commission objectives. In using the word
21 inadequate, EFCA is presumably referring to the proposed annual incentive of \$2
22 million. By comparison, APS calculates that the incentives buried in EFCA's proposal
23 far exceed \$2 million annually.⁸⁵

24 This comparison reveals the problem. We don't know the magnitude of
25 incentives embedded in EFCA's proposal. If customers install batteries as a result of the
26

27 ⁸³ See EFCA Post-Hearing Brief at 19:3-21.

28 ⁸⁴ See APS's Initial Post-Hearing Brief at 33-38.

⁸⁵ See APS Initial Post-Hearing Brief at 35:23-36:11.

1 incentives in EFCA's proposal, *we don't know how much of the value EFCA took for*
2 *itself*. We will never learn if the price paid through rate incentives was too high. Nor
3 would the Commission retain any means to scale back incentives if EFCA's proposal
4 becomes the next runaway NEM.

5 By contrast, the Commission (and customers) would be able to know exactly how
6 much was paid to incentivize storage under APS's proposal. The incentives could be
7 structured so that battery companies compete for the incentives, ensuring a motivation
8 for installers to seek the lowest incentive that still results in a viable battery installation.
9 If the amount was too high, the Commission could reduce incentives. And if the amount
10 was too low, and \$2 million each year did not result in enough battery installations to
11 achieve the Commission's policy objectives, the Commission could increase the amount
12 of incentives.

13
14 **c. How much does EFCA's proposal cost? Will it reduce
load? We don't know.**

15 EFCA asserts that \$2 million won't result in a "meaningful load reduction by the
16 next rate case when we really need it."⁸⁶ Yet EFCA offers no evidence supporting this
17 claim; which customers will install batteries and when; whether those batteries will
18 consistently reduce APS's peak sufficient to reduce the need for new infrastructure; no
19 insight into why load reduction is "really needed" before APS's rate case, much less
20 whether any potentially deferrable-infrastructure is planned between now and APS's
21 next rate case; nor any explanation of how its proposal will achieve meaningful load
22 reduction. And EFCA ignores the reality that if \$2 million does not achieve the
23 Commission's objectives regarding storage in one year, the Commission can increase
24 incentives the next year—the precise degree of flexibility missing with EFCA's
25 proposal.

26
27
28

⁸⁶ Tr. 1225:5-6 (Garrett).

1 **d. Customers pay for incentives, so we need to know if the**
2 **incentives work.**

3 EFCA's criticism of APS's proposal misses the broader picture. Since the
4 ultimate financial responsibility lies with customers, what is the most cost effective
5 route? Assuming that APS must make investments to serve increased load between now
6 and the next rate case, APS will propose that those investments be reflected in rates.
7 Alternatively, customer-funded incentives might reduce the magnitude of those
8 investments by encouraging customer-sited load reductions. Just as with APS
9 investments, these incentives will also be reflected in rates. This is true whether they are
10 cash incentives, as APS proposes, or incentives embedded in rate design (as EFCA
11 proposes).

12 In using the word "inadequate," EFCA glosses over any comparison between the
13 cost-effectiveness of reducing load with customer-funded rate design incentives and
14 meeting increased load through targeted infrastructure investments. And perhaps with
15 good reason, from its perspective. EFCA offers no evidence regarding how much
16 batteries cost, much less which customers will install them, when, whether the
17 customers will discharge the batteries during peak, or whether the batteries can
18 consistently work during peak, day-in and day-out.

19 By contrast, if APS makes an investment to meet increase load, it must carefully
20 do so in a cost-effective and prudent way. The investment will be targeted to fulfill the
21 current need, coordinated with system planning, and consistent with industry best
22 practices. When asked when reducing demand did not benefit customers, APS witness
23 Miessner responded:

24 Depends on how much you pay for that demand reduction. And reducing,
25 you know, during the middle of the night in the winter load is less valuable
26 than reducing load during our summer peaks.⁸⁷

27
28 ⁸⁷ Tr. 418:2-5 (Miessner).

1 Perhaps more importantly than the substantive assessment of the investment is the
2 process, and whether the investment and its cost, in relation to its benefit, is reviewable.
3 Under EFCA's proposal, there will be no opportunity to determine how much customers
4 are paying for the batteries they are funding, nor whether the batteries were the most
5 cost-effective option. Indeed, because EFCA proposes an incentive embedded in a
6 generally available rate option, it is unknown and unknowable whether customers
7 installing batteries under EFCA's proposal will do so in a time, manner, or place that
8 relates to system needs.

9 It is not that batteries are never the right choice to achieve system optimization. It
10 is that customers are subsidizing the facilities in question. Because financial
11 responsibility ultimately rests with customers, the cost-effectiveness of any investment
12 made to meet system needs must be quantifiable and reviewable. EFCA's proposal is the
13 opposite: an unquantified incentive, embedded in rates, funded by customers, and
14 designed to spur the installation of batteries without regard to (i) system location or
15 need; (ii) cost-effectiveness; or (iii) the possibility of more-targeted alternatives.

16 **e. Commission control ensures that incentives jumpstart,**
17 **rather than permanently subsidize, technologies.**

18 The risk that EFCA's proposed rate incentives will create a new runaway NEM is
19 simply too large, and the advantages too speculative. Incentives should be a targeted tool
20 to jumpstart a technology, not become a crutch that ensures subsidized profits. As EFCA
21 witness Garrett testified, "subsidies can make customers dependent."⁸⁸ If the
22 Commission retains control over the level of incentives, it can prevent this dependence
23 through a thoughtful incentive structure and by reducing (and eventually eliminating)
24 incentives as the technology and industry matures.

25 Only APS's proposal offers the Commission this kind of control over a targeted,
26 transparent tool. It offers a more measured and transparent means to incentivize storage,
27 and would permit the Commission to jumpstart a new technology, but retain the ability

28 ⁸⁸ Tr. 1225:7-9 (Garrett).

1 to protect customers. APS urges the Commission to avoid the mistakes of the past and
2 choose transparent incentives over incentives embedded in rate design.

3 **E. APS's position on residential demand charges is in no way**
4 **inconsistent with its support of the existing E-32 L rate structure.**

5 On page 18 of its Post-Hearing Brief, EFCA cites to three "inconsistencies" that
6 it believes reveal a contradiction in APS's position regarding demand rates. These
7 statements, however, reflect nothing but subtle, albeit important, differences in the
8 context and qualifiers surrounding the respective statements.

9 Regarding the first claimed inconsistency, EFCA ignores the qualifier "rational,"
10 which is perhaps the fulcrum of the entire citation. Rate designs that provide price
11 signals based on cost will, in fact, incent *rational* adoption of appropriate technologies
12 and are to be favored. Rate designs that do nothing more than subsidize a particular
13 technology, irrespective of cost or cost recovery, are quite a different case. Three-part
14 rates that appropriately recover grid investment costs from those who cause them do not
15 result in a cost shift.

16 Regarding the second claimed inconsistency, EFCA cites to APS witness
17 Miessner saying "I would disagree with that" in response to a compound question.⁸⁹ A
18 cursory review of the context easily dispels the notion of any inconsistency. Three-part
19 rates that do not reflect costs, or assign costs to the wrong rate element, will result in a
20 cost shift. It is this causal relationship that prompted APS witness Miessner to disagree
21 with the question posed by EFCA, not a sudden disavowal of APS's entire rate
22 application.

23 Regarding the last claimed inconsistency, EFCA cites to testimony by APS
24 witness Lockwood that EFCA's proposal is "directly analogous to the debate"
25 concerning rooftop solar and the cost shift.⁹⁰ How or why this statement offers any basis
26 for finding an inconsistency is not clear.

27 ⁸⁹ EFCA Post-Hearing Brief at 18.

28 ⁹⁰ *Id.* at 18.

1 Ultimately, EFCA's claims of inconsistency reflect a naïve understanding of
2 customer classes and rate design. It is true that some abstract rate design principles can
3 be applied to residential and commercial customers. But one need only begin scratching
4 below the surface to reveal profound differences between the two types of customers. It
5 is not uncommon for commercial customers to be one or more orders of magnitude
6 larger than residential customers. Swings in residential demand dispersed throughout the
7 class might be subsumed in larger usage patterns, whereas proportional commercial
8 swings might cause noticeable, and even significant, changes to how the system
9 operates. As APS witness Miessner testified, "[T]he sheer size of those [industrial]
10 customers in those classes require additional safeguards to make sure that we are
11 recovering their grid costs on an annual basis."⁹¹ Moreover, residential customer usage
12 patterns are generally homogenous. Commercial customers, on the other hand, are not.
13 And the way in which commercial customers use energy and impose demand on the
14 system, such as the prevalence of high load factors for E-32 L customers, simply cannot
15 be compared to residential customers.

16 These differences, among others, have very significant consequences for rate
17 design that could be the subject of detailed treatises. Instead of appreciating this
18 complexity, EFCA seeks to find inconsistencies through the use of superficial sound
19 bites. This substitute for analysis cannot escape the context of APS's statements
20 regarding residential and commercial customers, and must be ignored.

21 **F. EFCA fails to support the non-ratchet aspects of its proposal.**

22 In addition to removing the ratchet, EFCA seeks the removal of two other
23 important safeguards: tiered demand charges and off-peak demand charges. In its Post-
24 Hearing Brief, however, EFCA only offers a half-hearted statement that tiered-demand
25 impedes storage, and does not even suggest that off-peak demand charges might impede
26

27
28 ⁹¹ Tr. 425:13-16 (Miessner).

1 storage. The facts on which EFCA relies to support removing these protections simply
2 do not justify the associated cost recovery risks.

3
4 **1. The first tier of demand is not a fixed charge, does not impede
storage, and is consistent with Commission precedent.**

5 EFCA contends that having a different price for the first 100 kW of demand
6 somehow makes this element of the customer's bill "fixed." But what is "fixed" about
7 it? If a customer uses less than 100 kW in a particular month (for example, 50 kW), they
8 would be billed for that lesser amount—50 kW. If the customer used 200 kW, the charge
9 for the first 100 kW is no more "fixed" than that for the second 100 kW. And that would
10 be true irrespective of price. Requiring customers to pay for their actual demand does
11 not make a charge "fixed." And in any event, EFCA has not actually explained how the
12 existence of two demand tiers impedes the development of storage, let alone proven that
13 contention. What has been shown is that eliminating the current features of the E-32 L
14 rate can have unintended and adverse consequences to both customers and the
15 Company.⁹²

16 There is extensive literature on the subject of declining block energy charges,
17 most of it now dated. None of these decisions involved blocked demand charges, and
18 EFCA cites no ACC precedent relevant to this issue. As an existing approved rate
19 structure, E-32 L is entitled to the presumption that is just and reasonable absent
20 persuasive evidence to the contrary.⁹³ EFCA has provided no such evidence.

21 **2. Off-peak demand charges are based on costs and are critical to
22 ensuring fixed cost recovery.**

23 EFCA briefly criticizes off-peak demand charges as punitive and unnecessary.⁹⁴
24 As discussed in APS's Initial Post-Hearing Brief, off-peak demand charges contribute
25

26 ⁹² See Miessner Settlement Rebuttal Testimony at 18-19.

27 ⁹³ See *Tucson Elec. Power Co. v. Ariz. Corp. Comm'n*, 132 Ariz. 240, 242, 645 P.2d 231, 233 (1982);
Litchfield Park Serv. Co. v. Ariz. Corp. Comm'n, 178 Ariz. 431, 434, 874 P.2d 988, 991 (App. 1994);
PPL Wallingford Energy LLC v. F.E.R.C., 419 F.3d 1194, 1199 (D.C. Cir. 2005).

28 ⁹⁴ See EFCA's Post-Hearing Brief at 8-9.

1 22% of the E-32 L TOU class's demand revenue.⁹⁵ Removing the rate element that
2 ensures the recovery of this revenue would put adequate cost recovery in serious
3 jeopardy. Moreover, off-peak usage does drive costs, and it would be inappropriate to
4 remove the off-peak demand charge for sophisticated customers who might be capable
5 of shaping their load to avoid costs far beyond system cost savings.⁹⁶

6 EFCA also asserts that it is inappropriate to "hit customers with an *increased*
7 charge for actually accomplishing the goal of shifting their peak consumption off
8 peak."⁹⁷ But it is not an *increased* charge, it is a *decreased* demand charge for off-peak
9 consumption. Under the Settlement's proposed rates, E-32 L TOU customers would pay
10 \$5.98/kW on-peak, but only \$2.275/kW off-peak.⁹⁸ This differential is exactly the type
11 of differential that incentivizes customers to shift their consumption to off-peak
12 periods.⁹⁹

13 Finally, it is inappropriate to blindly adhere to any one rate design goal, such as
14 shifting consumption off-peak in this instance. Off-peak consumption drives its own set
15 of costs, and reducing on-peak consumption must be balanced with the need to ensure
16 recovery of those off-peak costs. The proposed E-32 L TOU off-peak demand charges—
17 less than half of the proposed on-peak demand charges—accomplish that balance.

18 **VII. CONCLUSION**

19 APS and the Settling Parties have demonstrated that the Agreement benefits
20 customers and will allow APS to continue providing safe, quality, and reliability service.
21 Based on the evidence presented, APS requests that the following facts be found:

- 22 • The Settlement Agreement would result in just and reasonable rates, is in the
23 public interest, and should be approved without modification;

24
25 ⁹⁵ See discussion on page 36 of APS's Initial Post-Hearing Brief.

26 ⁹⁶ See APS's Initial Post-Hearing Brief at 37-38.

27 ⁹⁷ EFCA's Post-Hearing Brief at 9:5-7 (emphasis added).

28 ⁹⁸ See Settlement Agreement, Appendix G at 11 of 14.

⁹⁹ See, e.g., Decision Nos. 75697 at 66 and 75975 at 64 (approving lower BSCs for residential TOU rates offered by UNSE and TEP, respectively, to encourage customers to select those TOU rates).

- 1 • The Settlement Agreement resulted from a fair and inclusive process that
2 afforded all parties the opportunity to participate;
- 3 • The 90-day trial period for new rates that begins on May 1, 2018, as proposed in
4 the Settlement Agreement, appropriately balances customer choice with the need
5 to begin modernizing rates, is in the public interest, and should be approved
6 without modification;
- 7 • The basic service charges proposed in the Settlement Agreement are based on
8 cost, just and reasonable, and should be approved without modification;
- 9 • The AMI opt-out program proposed in the Settlement Agreement is in the public
10 interest, includes just and reasonable charges based on cost, and should be
11 approved without modification;
- 12 • The 3 p.m. to 8 p.m. peak time-of-use period proposed in the Settlement
13 Agreement appropriately reflects current and future conditions, is in the public
14 interest, and should be approved without modification;
- 15 • EFCA's proposal to create an optional rate for E-32 L and E-32 L TOU
16 customers is not in the public interest, and should not be adopted, because:
 - 17 ○ It is not needed to incentivize customer-sited storage;
 - 18 ○ Its primary purpose is to adapt rate design to a particular business model;
 - 19 ○ It would result in a cost shift because it would permit customers who
20 install batteries to avoid contributing to the fixed costs incurred to provide
21 them service;
 - 22 ○ By burying incentives in rates, EFCA's proposal would:
 - 23 ■ remove the Commission's ability to control the level of incentives
24 to achieve specified goals and protect customers from
25 overspending;
 - 26 ■ preclude the steady and rational reduction of incentive levels as
27 battery technology improves and costs decline;

- stymie technological development by setting an arbitrary price point for batteries based on fixed rate incentives, rather than variable incentives for which battery installers can compete; and,
- prevent needed transparency into the costs incurred to incentivize new technologies; and
 - The benefits claimed by EFCA are too speculative; and
 - It would create a new generation of customers entering into business transactions based on specific rate designs, triggering another round of discussions concerning whether to grandfather those rate designs; and
- If, as a matter of policy, the Commission believes it desirable to incentivize battery technology, APS's proposal to offer transparent incentives, independent of cost-based rate design, that can be targeted to achieve specific objectives and reduced as technology costs decline, should be adopted.
- The deferral and step rate adjustment proceeding associated with the Selective Catalytic Reduction environmental controls at the Four Corners Power Plant should be approved as set forth in the Agreement and specifically that:

This rate case shall remain open for the sole purpose of allowing APS to file a request, no later than July 1, 2018, that its rates be adjusted to reflect the revenue requirement and deferral costs associated with the Selective Catalytic Reduction (SCR) environmental controls at the Four Corners Power Plant. Specifically, APS may within ten (10) business days after in-service operation of the second SCR, but no later than July 1, 2018, file an application with the Commission seeking to reflect in rates the rate base and expense effects associated with the installation of SCRs on Four Corners Units 4 and 5.
- APS also requests that the decision in this case contain the following language regarding the SCR accounting deferral:

IT IS FURTHER ORDERED that Arizona Public Service Company is authorized to defer for possible later recovery through rates, all non-fuel costs (as defined in Paragraph 9.2 of the Settlement Agreement) of owning, operating, and maintaining the Selective Catalytic Reduction (SCR) environmental controls at the Four Corners Power Plant. Nothing in this Decision shall be construed in any way to limit this Commission's authority to review the entirety of the project and to make any disallowances thereof due to imprudence, errors or inappropriate application of the requirements of this Decision.

- 1 • The deferral associated with the Ocotillo Modernization Project (OMP) should be
2 approved as set forth in the Agreement.
3
4 • APS also requests that the decision in this case contain the following language
5 regarding the OMP accounting deferral:

6 IT IS FURTHER ORDERED that Arizona Public Service Company is
7 authorized to defer for possible later recovery through rates, all non-fuel
8 costs (as defined in Paragraph 10.1 of the Settlement Agreement) of
9 owning, operating, and maintaining the Ocotillo Modernization Project
10 and retiring the existing steam generation at Ocotillo. Nothing in this
11 Decision shall be construed in any way to limit this Commission's
12 authority to review the entirety of the project and to make any
13 disallowances thereof due to imprudence, errors or inappropriate
14 application of the requirements of this Decision.

15 The record contains ample support for each of these findings, and APS respectfully
16 requests that the Presiding Officer include them in the recommended opinion and order.
17

18 RESPECTFULLY SUBMITTED this 1st day of June 2017.

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